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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/041,971	01/02/2002	Stephen M. Bisque	Bisque-App	4239
7590	12/30/2005			
Edwin H. Crabtree Suite 57 S 3773 Chewy Creek N. Drive Denver, CO 80209			EXAMINER TRAN, MYLINH T	
			ART UNIT 2179	PAPER NUMBER
DATE MAILED: 12/30/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/041,971	<b>Applicant(s)</b> BISQUE ET AL.	
	<b>Examiner</b> Mylinh Tran	<b>Art Unit</b> 2179	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on response filed 10/14/05.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1--30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                         |                                                                             |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                                |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____                                                             | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

Applicant's request for reconsideration filed 10/14/05 has been entered and carefully considered. However, arguments regarding rejections under 35.U.S.C 102 and 35 U.S.C. 103 to claims 1-30 have not been found to be persuasive. Therefore, these claims remain rejected under the same ground of rejection as set forth in the office action mailed (07/13/05).

#### ***Claim Rejections - 35 USC § 102***

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim s 1-4 and 8-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Zweig [US. 2002/0173877]

As to claim 1, Zweig teaches a computer implemented method and corresponding apparatus for operating an astronomical observatory (page 2, 0016, 0018) comprising the steps/means a set of astronomical hardware, said set of astronomical hardware being located at the observatory site and supplying the means for making celestial observations (page 2, 0018); and controlling said set of astronomical hardware according to and for capturing these observations in a digital format (page 2, 0018, 0021), said browser providing the means for the user to be able to send request to the observatory, and receive the status and results of these requests by utilizing an http protocol (see abstract and page 2, 0019); said web browser further providing a graphical

interface for the user which may include displays of the status and results of the requests made by the user to various components of the system as they occur in real time (page 1, 0011-0012 and page 5, 0056); a web server, said web server providing the means for transmitting and receiving communications to and from said web browser utilizing an http protocol, said web server further including the capability of controlling said set of astronomical hardware according to requests sent to said web server via said web browser from the user (page 5, 0060, 0061).

As to claim 2, Zweig teaches the set of astronomical hardware including a telescope, said telescope being composed of a telescopic optics system allowing magnified observation of the sky to take place, and a telescope mount capable of controlling the position of the telescopic optics system for the purpose of pointing to, and tracking on, celestial objects (page 2, 0018).

As to claim 3, Zweig teaches that the set of astronomical hardware further including an imaging camera, said imaging camera being located at said telescope, said imaging camera being positioned so as to be able to capture an image of a celestial object at which said telescope is aimed, said imaging camera further capturing said image of the celestial object in a digital format (page 5, 0053, 0056).

As to claim 4, Zweig teaches web server including a request manager, said request manager being responsible for listening for, and responding to requests sent to said web server by said web browser, said request manager further

being relied upon to queue requests from said web browser in order to permit said set of astronomical hardware to execute the requests in an orderly fashion, said request manager also providing the means for sending information back to said web browser utilizing an http protocol (pages 5-6, 0060-0061).

As to claim 8, Zweig provides a telescope manager and a telescope driver, said telescope manager to generate and semi specific directions to said telescope based on requests made by the user, said telescope manager further being able to receive and said telescope driver being capable of translating communications between said telescope and said telescope manager (page 2, 0018 and page 5, 0056).

As to claim 9, Zweig teaches the web server including an imaging camera manager and an imaging camera driver, and send specific directions to said imaging camera said imaging camera manager further serving to process information from said imaging camera as well as acting as an image reducer for images generated by said imaging camera, and said imaging camera driver being capable of translating communications between said imaging camera and said imaging camera manager (page 5, 0053, 0056).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said

subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5-7 and 10-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Zweig [US. 2002/0173877]

As to claim 5, Zweig fails to clearly teach a power manager, said power manager providing said web server the means for, at the request of said web browser, being able to power on or off any or components of said set of astronomical hardware. However, controlling the power on or off is well known in the art because user controls the telescope, the power is automatically controlled. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine the well known implementation of controlling the power manager. Motivation of the combination is to help user to control the astronomical observatory through a web server.

As to claim 6, Zweig fails to clearly teach web server including a user database, said user database containing a list of user account information for use in determining if and when a user should be allowed to control the observatory. However, it is well known in the art that the user account information is suggested because of a security system. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine the well known implementation of the security system. Motivation of the combination is to help user to control the astronomical observatory through a web server.

As to claim 7, In light of the rejection above, Zweig suggests a user manager, said user manager accessing said user database and using the information contained therein to serve as a gate by which the user must gain entrance if he/she wishes to control the observatory, said user manager further controlling the scheduling of users for control of the observatory at specific times. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine the well known implementation of user manager. Motivation of the combination is to help user to control the astronomical observatory through a web server.

As to claims 10 and 19, the claim is analyzed as previously discussed with respect to claims 1-9. Also, Zweig teaches the web browser and the web server including a request manager and the astronomical hardware including an imaging camera (page 5, 0053, 0056).

As to claims 11 and 20, Zweig et al. fail to teach the set of astronomical hardware further including a dome, said dome providing a protective shell for the observatory against weather and other elements of nature, said dome also having a retractable opening so as to permit said telescope access to the sky. However, dome's opening is well known in the art because the dome's opening is included in the Zweig telescope system to instruct the telescope direction. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine the well known implementation of the dome's

opening. Motivation of the combination is to help user to control the astronomical observatory through a web server.

As to claims 12 and 21, Zweig teaches a camera system. However, Zweig fails to provide the auto-guiding camera, said auto-guiding camera being located at said telescope and being oriented so as to be able to find a celestial object in the sky near the object at which said telescope is aimed. The auto-guiding camera is well known in the art it is automatically controlled by the user. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine the well known implementation of the auto-guiding camera system. Motivation of the combination is to help user to control the astronomical observatory through a web server.

As to claims 13, 22-23, 25 and 28-29, Zweig fails to clearly teach a dome manager and a dome driver, said dome manager being the means to generate and send specific directions to said dome, said dome driver being capable of translating any and all communications between said dome and said dome manager. However, in light of rejection above from claim 11, user controls the telescope, the dome manager and driver are automatically controlled. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine the well known implementation of controlling the dome manager and dome driver. Motivation of the combination is to help user to control the astronomical observatory through a web server.



As to claim 14, Zweig fail to teach a telescope model manager, said telescope model manager being responsible for quantifying systematic errors inherent in said telescope, these errors include but are not limited to offset or bias errors, polar misalignment, refraction, non-perpendicular axis, gear errors, tube flexure, and fork flexure, said telescope model manager quantifying these errors by using a mapping process to create a model coordinate system which is then translated into the coordinate system of said telescope. However, the telescope model manager is well known in the art because the telescope model manager is automatically controlled by the user. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine the well known implementation of the telescope model manager. Motivation of the combination is to help user to control the astronomical observatory through a web server.

As to claims 15 and 26, Zweig teaches a camera system. However, Zweig fails to provide the auto-guiding camera, said auto-guiding camera being located at said telescope and being oriented so as to be able to find a celestial object in the sky near the object at which said telescope is aimed. The auto-guiding camera is well known in the art it is automatically controlled by the user. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine the well known implementation of auto-guiding. Motivation of the combination is to help user to control the astronomical observatory through a web server.

As to claims 16 and 27, Zweig fails to clearly teach a broadcast manager, said broadcast manager serving the purpose of broadcasting the status and results of requests made by the user to any number of outside observers while ensuring that these broadcasts do not slow the system down, said broadcast manager further being capable of sending these broadcasts utilizing a number of different information transfer technologies, such as file transfer servers, gopher, email, fax, and/or model. However, the broadcast manager is well known in the art because Zweig teaches the telescope system is automatically controlled by a web user.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine the well known implementation of broadcast manager. Motivation of the combination is to help user to control the astronomical observatory through a web server.

As to claims 17-18, Zweig fails to clearly teach the celestial object database and a celestial object database manager, said celestial object database containing both ephemeris and graphical data for celestial objects including but not limited to galaxies, minor planets, planets, satellites and stars for any field of view, for any date and time, and said celestial object database manager providing the means to be able to access said celestial object database to obtain any information contained therein that has been requested by the user. However, the celestial object database is well known in the art of the telescope system. The web user controls the telescope system. The celestial object

database is automatically controlled by the web user. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine the well known implementation of the celestial object database.

Motivation of the combination is to help user to control the astronomical observatory through a web server.

As to claims 24 and 30, Zweig fails to clearly teach the set of astronomical hardware further including a set of weather station instrumentation, said set of weather station instrumentation providing information about the weather at the observatory site, this information might include such measurements as wind speed, temperature, air pressure, and/or humidity. However, the set of astronomical hardware is well known in the art. The web user controls the telescope system. Therefore, the set of weather station instrument is automatically controlled by the web user. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine the well known implementation of the set of astronomical hardware. Motivation of the combination is to help user to control the astronomical observatory through a web server.

### **Reduction to Practice**

The Declaration filed on 10/14/05 under 37 CFR 1.131 has been considered but is ineffective to overcome the applied references.

- a. Applicant seeks to establish prior invention by showing reduction to practice before 01/16/2001, the date of the Zweig's reference.

b. In general, proof of actual reduction to practice requires a showing that the apparatus actually existed and worked for its intended purpose. (See *MPEP 715.07*)

For an actual reduction to practice, the invention must have been sufficiently tested to demonstrate that it will work for its intended purpose, but it need not be in a commercially satisfactory stage of development. If a device is so simple, and its purpose and efficacy so obvious, construction alone is sufficient to demonstrate workability. *King Instrument Corp. v. Otari Corp.*, 767 F.2d 853, 860, 226 USPQ 402, 407 (Fed. Cir. 1985). (See *MPEP 2138.05*).

c. Applicant relies on Exhibit A to show reduction to practice; however, Exhibit A is merely a description of the concept of the invention.

d. A written description does not constitute an actual reduction to practice. Furthermore, only the filing of a US patent application which complied with the disclosure requirement of 35 USC 102 constitutes a constructive reduction to practice. A written description, no matter how complete, which has not been made the subject of a US patent application does not qualify as reduction to practice.

e. Furthermore, the reduction to practice which must be shown is reduction to practice of the claimed invention. As already explained in the previous action, Exhibit A does not show the claimed invention.

f. There is not enough evidence to clearly prove the relationships between Exhibit A and the claims. Therefore, no reduction to practice has been shown

and applicant has failed to establish prior invention. Applicant's arguments of the Declaration filed 10/14/05 on under 37 CFR 1.131 have been fully considered but they are not persuasive, and the rejection is still remained.

### **Response to Arguments**

Applicant argues that Zweig does not teach or suggest the operation of astronomical hardware at a fixed astronomical observatory site and under the remote control of a web browser and a web server for making celestial observations. However, the examiner respectfully disagrees because the features are taught at page 3, 0033. Applicant's attention is directed to the line "a capability of establishing a first connection to a remote web browser on the internet for robotic control purposes... a remote user on the internet may direct the robot to move within range of the external devices, discover their functionality, and send and receive commands and data to the external devices through the CGI interface on the robot's onboard web server".

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on

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the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mylinh Tran. The examiner can normally be reached on Mon - Thu from 7:00AM to 3:00PM at 571-272-4141.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo, can be reached at 571-272-4847.

The fax phone numbers for the organization where this application or proceeding is assigned are as follows:

571-273-8300

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mylinh Tran

**BA HUYNH  
PRIMARY EXAMINER**

